

Shown  
with Optional  
Adapter to Connect  
With Lubrication Line

# SEALMASTER® COOLING TOWER BEARINGS

## VERTICAL SHAFT COOLING TOWER BEARINGS

### APPLICATION

Bearings mounted in a vertical shaft orientation in HVAC application.

### SOLUTION TYPE

Performance Efficiency  
Design for Application

### DESCRIPTION OF PROBLEM

Vertical shaft cooling tower fan applications can be problematic for bearings due to moisture condensation running down the shaft and collecting on top of the bearing. Typically bearing inserts are recessed within the casting where moisture can tend to pool and collect. Over time, the moisture may work past the seals and flow into the bearing cavity, which may cause poor lubrication conditions leading to wear and/or corrosion. Another issue with a bearing mounted in a vertical shaft orientation is grease slumping to the bottom and being prone to purge out. This may lead to low grease fill levels, which can impact lubrication within the bearing.

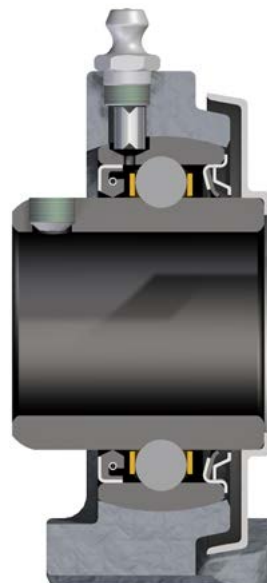
### SEALMASTER® PRODUCT SOLUTION

Regal has several specialized Sealmaster® bearings designed for cooling tower applications. These bearings have a shield which is pressed onto the inner ring of the bearing to act as an umbrella. In order for this concept to work, special casting designs are used to prevent contact of the shield and casting (this shield will not fit on standard product).

These special designs also offer a spring loaded seal on the bottom side to better retain lubrication in the bearing than traditional single lip contact seals. A single lip seal is used on top to direct grease purge up and fill the area underneath the shield with grease to provide an additional barrier against moisture.

### KEY CUSTOMER NEEDS AND BENEFITS FROM SEALMASTER® PRODUCTS

- Lithium complex grease with improved water washout to most conventional grease
- Wide outer ring for increased grease capacity
- Lock pin and dimple to provide anti-rotation of bearing insert in housing and a direct lubrication path from the grease fitting into the bearing cavity



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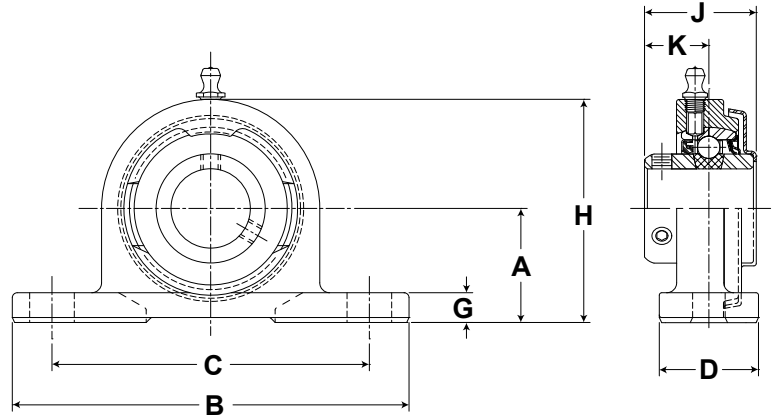
## VERTICAL SHAFT COOLING TOWER BEARINGS

### FEATURES

- **Duty:** Standard
- **Rolling Elements:** Ball
- **Housing:** Cast iron pillow block
- **Self Alignment:** ±2 Degrees
- **Lock:** Setscrew
- **Seal:** Spring loaded contact (bottom side) and single-lip contact (top side)
- **Temperature:** -20° F to 220° F

### BENEFITS

- Rotating metal rain shield to deflect moisture
- Spring loaded contact seal on bottom to better retain grease in bearing
- Air handling housing fit allows the bearing to properly self-align.



PART ID	BORE	A	B	CMIN	CMAX	D	G	H	J	K	BOLT SIZE	COMMENTS
S-2116-M15	15/16	1 7/16	5	3 13/16	4 3/16	1 1/4	3/8	2 13/16	1 13/32	13/16	3/8	Grease Fitting
S-2116-M16	1											Grease Fitting
S-3774-M16	1											No Grease Fitting
S-4821-M16	1											PN Gold™ Insert
S-2119-M18	1 1/8	1 11/16	6	4 7/16	4 13/16	1 3/8	7/16	3 3/8	1 9/16	7/8	1/2	Grease Fitting
S-2119-M19	1 3/16											Grease Fitting
S-2119-MB19	1 3/16											90° Grease Fitting

All dimensions are in inches.

For made-to-order special options (minimums apply) and bearing housing styles/shaft sizes not listed here, contact

Application Engineering at 800-626-2093 or email

[ApplicationEngineering.PTSolutions@regalbeloit.com](mailto:ApplicationEngineering.PTSolutions@regalbeloit.com)

## SEALMASTER®

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### APPLICATION CONSIDERATIONS

The proper selection and application of power transmission products and components, including the related area of product safety, is the responsibility of the customer. Operating and performance requirements and potential associated issues will vary appreciably depending upon the use and application of such products and components. The scope of the technical and application information included in this publication is necessarily limited. Unusual operating environments and conditions, lubrication requirements, loading supports, and other factors can materially affect the application and operating results of the products and components and the customer should carefully review its requirements. Any technical advice or review furnished by Regal Beloit America, Inc. and/or its affiliates ("Regal") with respect to the use of products and components is given in good faith and without charge, and Regal assumes no obligation or liability for the advice given, or results obtained, all such advice and review being given and accepted at customer's risk.

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